Transforming Medication Delivery Process Enhanced Patient Engagement

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ABSTRACT

Background: All healthcare facilities have their process to deliver medication from pharmacy to treatment room or inpatient. This process can be manual or though pneumatic tube system. In manual medication delivery process one person has to go and collect or deliver medication to required place. In general practice, nurses were assigned to collect medication from pharmacy as per patient requirement. During this process nurses used to wait at the pharmacy to get medication while leaving patient unattended. This process wastes 10 to 12 minutes of every nurse if they have to administer medication to patient. To eliminate medication collection process, messengers were introduced to deliver required medication in treatment room.

Purpose: The purpose of this quality improvement project is to improve patient engagement by transforming the Medication Delivery Process which, Enhances Patient Engagement and optimizes the medication delivery process by utilizing messengers. Additionally it ensures the availability of nurses in the patient care area.

Methods: The Pharmacy & Therapeutic Committee (P&T) and Quality & Excellence Office (QEO) had initial meeting. They decided to use FOCUS PDCA methodology for quality improvement projects of Transforming the Medication Delivery Process which, Enhances Patient Engagement in two healthcare facilities through pilot study in 2018.

Result: The patients' waiting time to get treatment dropped from 25 minutes to 7 - 8 minutes. Verbal complaints were reduced by 10% and nursing staff's satisfaction level raised from 29% to 93%. Simultaneously increased nurses' productivity through which nurses' patient engagement enhanced whiling raising overall patient satisfaction.

Conclusion: The quality improvement project illustrates that the healthcare providers engaged themselves with patient and worked together towards grander engagement in healthcare which, contributes to improving health outcomes.

Keywords : Pharmacy and therapeutic committee (P&T), Quality and excellence office (QEO)

ORIGINAL RESEARCH ARTICLE

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CITATION OF THE ARTICLE

I. INTRODUCTION

Patients' interactions with healthcare organizations are now extensively acknowledged to be a central focus of healthcare services. In past few decades, the healthcare organizations have taken extraordinary leaps in emerging testing frameworks and made prudent impact on various aspects of patient engagement at several points to focus in the inexorably entanglement of seeking and utilizing healthcare services. Each patient has a right to decide whether and when to seek care and which plans and providers shall meet their needs. How to manage their health. And how to adapt conflicting advice from providers – often friends & family, some of the time. It's all intensified by advancement in communications and information technology [1].

People using healthcare services are gradually asking for a more responsive, open and transparent healthcare system. They expect healthcare professionals to engage them in the decision-making process. Although, an individual patient may vary substantially in their preferences for such involvement.

Patient engagement is a critical cornerstone of patient safety and quality [2].

As the Institute of Medicine (IOM) stated in its 2012 publication, "Best Care at Lower Cost : The Path to Continuously Learning Health Care in America", says, "Improved patient engagement is associated with better patient experience, health, quality of life and better economic outcomes, yet patient and family participation in care decisions remains limited [3].

The Center for Advancing Health (CFAH) defines patient engagement as "actions people take to support their health and benefit from healthcare." [4].

Evariant defined patient engagement "Promoting patient engagement in healthcare helps to improve health outcomes, drive better patient care, and achieve lower costs. It combines a patient's knowledge, skills, ability, and willingness to manage their own care with communications designed to promote positive behaviours. Patients want to be engaged in their healthcare decision-making process, and those who are engaged in their care, tend to be healthier"[5].

Patient engagement promotes mutual accountability and understanding between patients and healthcare providers. Healthcare providers ideally engage patients in a discussion about their health conditions, treatment circumstances, health needs, personal values and preferences. When this discussion occurs between patients and healthcare providers, patients feel more comfortable to discuss their health concerns and elaborate more on their experiences. This helps developing mutually agreed care management plans [6].

II. PURPOSE OF THE STUDY

The purpose of this quality improvement project is to improve patient engagement by Transforming the Medication Delivery Process which, Enhances Patient Engagement and optimizes the medication delivery process by utilizing messengers and ensuring the availability of nurses in the patient-care area. Hence, ensuring a better patient experience. The quality improvement project has started in 12 healthcare facilities. These 12 healthcare facilities provide similar healthcare services.

III. METHOD

The P&T Committee and QEO had initial meeting and decided to use FOCUS PDCA methodology for quality improvement projects of Transforming the Medication Delivery Process which Enhance Patient Engagement.

FOCUS PDCA
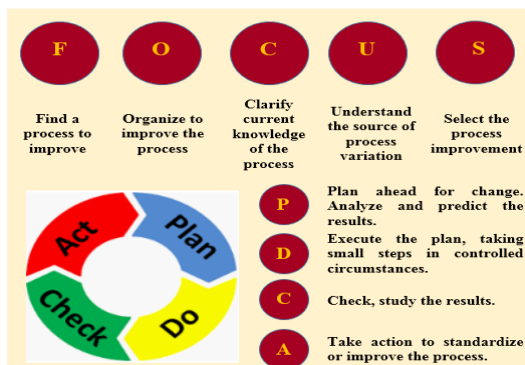
F- The P&T Committee and QEO had discussed in meetings about patient waiting time during treatment, patient verbal complaint and nursing staff feedback. Based on that, committee has identified an opportunity to enhance patient engagement through improved treatment room medication delivery process.

O- To initiate a quality improvement project, the P&T Committee and QEO had selected a team and explained about quality improvement project along with its objectives. The P&T Committee and QEO supported the selected team extensively in every step.

C- The team met with end users. They clarified treatment room medication delivery process and gathered information that, assigned treatment room nurses were going to the pharmacy to collect medications while spending minimum 10 minutes of their valuable time in pharmacy to collect medication. During the process patients were left alone in treatment rooms.

Conventional Process

Improved process
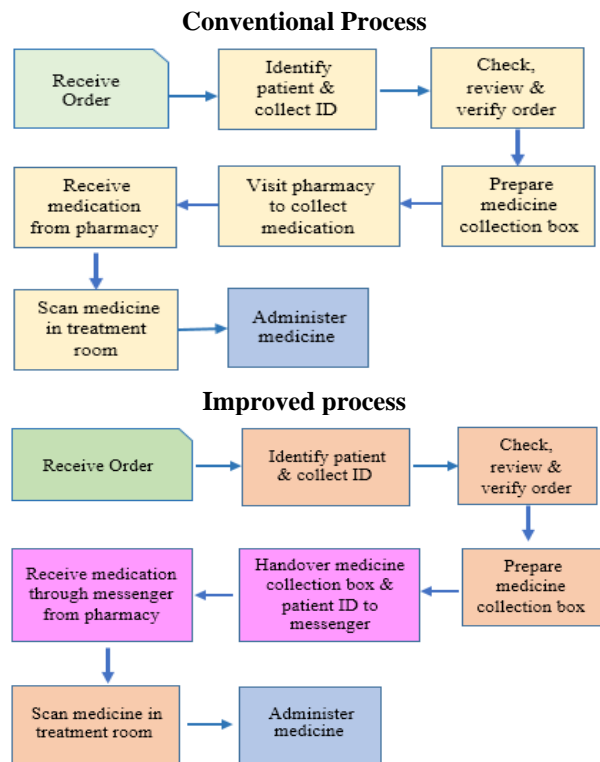
U- The concerning factors which were noted ware interrupting staffs with engaging patients. The noted points were then discussed with the P&T Committee and QEO in order to understand the process variation.

S- The team, P&T Committee and QEO led the improvement strategy.

P- The team, P&T Committee and QEO had decided for Quality Improvements that were projected and planned to do Pre and Post Implementation Survey (please refer to annexure 1) in 12 healthcare facilities. Moreover, they changed medication delivery process and conducted feedback though focused meeting with end users.

D- The P&T Committee and QEO had decided to do pilot study, conducted in two healthcare facilities, which are busier due to more patient footfall. The team had conducted pre-survey in 12 healthcare facilities to understand nursing staff satisfaction with the current practice of non-stock medication transportation. The P&T Committee and QEO had decided to change treatment room medication delivery process to reduce patient waiting time and enhance patient engagement, which in turn will reduce patient complaints.

Medication delivery process

Based on the decided strategy, the team, P&T Committee and QEO changed the treatment room medication delivery process while training staffs on the modified process.

Patient engagement

Special training provided to nursing staffs to engage themselves with patients. The list of the vital topics was prepared and given to nurses to elucidate patients and boost awareness. Nursing staffs had engaged themselves with patients and explained aforementioned topics in which one of them was "ASK ME 3". This is an educational program that encourages patients and their families to ask three specific questions to their providers to better understand the patient's health condition and what they need to do in order to stay healthy.

1. What is my primary problem?
2. What do I need to do?
3. Why is it important for me to do this?

"Ask Me 3" is intended to help patients become more active members of their health care team. This provides a critical platform to improve communications between patients, their families and health care professionals.

A patient is likely to be more attentive while attended by a nurse. This is the time when nurses elucidate a patient about his/her rights and responsibilities which, usually patients don't bother to care about. It is important to make patients aware of what they should do during an emergency.

Nurses also explained the emergency contact process along with provisioning of information to clarify confusions related to prescribed and dispensed medication, if any.

Importance of current medication is explained to the patient. This helps the physician to prescribe correct medications. The reporting process of medications' adverse effects is also conveyed to the patient.

Smart applications like "My DHA" which provide DHA services to Dubai residence to access and manage Appointments, Lab Results and Medications, check Medical Fitness Application Status, Register and Volunteer for Blood Donation services. They were also informed by nursing staff as this app supports both English and Arabic language.

Nursing staffs have taken the initiative to educate patients on hand washing steps and use of personal protective equipment during cough & cold. This can prevent the spread of the germs (like bacteria and viruses) that cause these diseases.

After all these efforts some patients may complain and it is a healthcare organization's responsibility to make the patient aware of "compliant, suggestion and feedback procedure". This was the last topic in the list, in which nurses explained various channels to log complaints, suggestions and feedbacks. Moreover, handouts were distributed to patients.

C- One month pilot study in two healthcare facility revealed positive feedback and area of improvements. Pre Implementation Survey result depicts that 29% nursing staffs was not happy with the current practice and many patient verbal complaints which were resolved within treatment room before reaching to management. The Post Implementation Survey and end user meeting were conducted to obtain feedback through meeting on the implemented process from end users.

A- Based on Post Implementation Survey result and meeting feedback, corrective actions were taken in an identified area of further improvement and the team, along with Pharmacy & Therapeutic Committee, trained staffs of 12 healthcare facilities on a modified medication delivery process. The process was implemented in the aforementioned facilities at the same time. After five months, Post Implementation Survey was conducted in 12 healthcare facilities and meetings were arranged with end users.

IV. RESULTS

The quality improvement project had improved patient and nursing engagement without interruption in clinical care by modifying the treatment room medication delivery process. This process reduced patient waiting time in the treatment room. It also provided ample opportunity to staffs in the assigned area to attend the next patient while waiting for the medicines from the pharmacy to arrive.

This entire patient care process which helped nurses to gain patient demonstrability and build up trust. The current modified process allowed staffs to complete patient medical record and reduced unnecessary task.

Pre Implementation Survey resulted that 29% of the nursing staffs were not happy with the current practice and many patients made verbal complaints which were resolved within the treatment room without escalating any further. The post survey result portray 93% of the nursing staffs were satisfied with new medication transportation process.

**Table- 1 Pre and post Implementation survey question result**

Question Number	Pre Implementation Survey Question		Post Implementation Survey Question	
	Yes	No	Yes	No
Q1	90%	10%	11%	89%
Q2	77%	23%	11%	89%
Q3	87%	13%	58%	42%
Q4	29%	71%	93%	7%
Q5	86%	14%	40%	60%
Q6	29%	71%	62%	38%
Q7	63%	37%	100%	0%
Q8	56%	44%	92%	8%

Pre and post Implementation survey question result

Pre and Post Implementation Survey Question Result
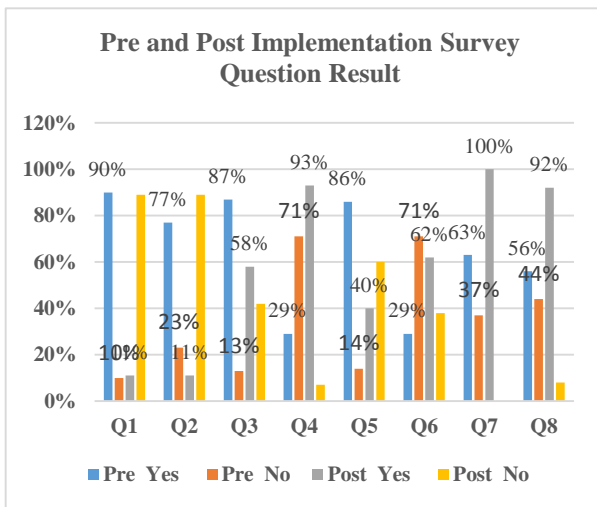
The patient verbal complaints were reduced significantly and drastically by 10% at the beginning of the first month and more in the subsequent months. Previously patients were waiting for an average of 25 minutes to receive treatment. This was dropped down to an average of 7 - 8 minutes enabling nurses to serve more patients.

Pre and post implementation result of waiting and nurse satisfactions

Pre & Post Implementation of Project
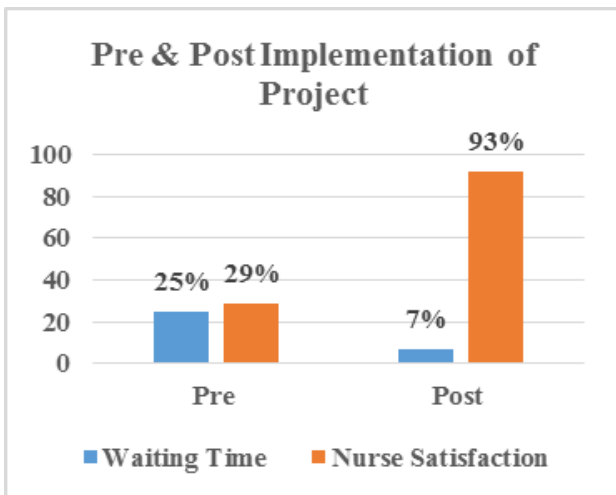
The consonance of quality improvement project which, reduced waiting time in the treatment room to receive treatment, brought down a number of patient complaints. Specifically, staff-patient engagement helped health care practices to improve patient experience.[7]

V. CONCLUSION

This quality improvement project illustrates that the healthcare providers engaged themselves with patients and worked together towards grander engagement in healthcare which, contributes to improving health outcomes.

The patients' waiting time to get treatment was reduced and nursing staffs' satisfaction raised significantly. Simultaneously increased nurses' productivity through this. Also nurses' patient engagement enhanced which, raised overall patient satisfaction.

It is conveyed that, healthcare organizations are responsible for making patients aware of these essential topics and engage them in their healthcare decision-making process. Those who are engaged as decision-makers in their care, tend to be healthier and have better outcomes. Healthcare organization takes several steps to sensitize patients and be assertive in taking care of themselves.

VI. ANNEXURE

Pre & post implementation survey questionnaire

	Question	Answer Key	
Q1.	Do you Frequently go to pharmacy to collect non-stock medications?	Yes	No
Q2.	Do you spend long time in non-stock medication collection from the pharmacy?	Yes	No
Q3.	Do you think patient care is interrupted due to collection of non-stock medication from pharmacy	Yes	No
Q4.	Are you satisfied with the current practice of non-stock medication transportation procedure?	Yes	No
Q5.	Do you think the process of non-stock medication collection from the pharmacy needs improvement?	Yes	No
Q6.	Do you think collection of non-stock medication allows you adequate time for patient care?	Yes	No
Q7.	Do you think messengers can assist to collect non-stock medication from pharmacy?	Yes	No
Q8.	Do you think assistance of messengers in collecting non-stock medication from pharmacy promotes safe practice?	Yes	No

VII. ACKNOWLEDGEMENT

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